

CHEM 1311.002: GENERAL
CHEMISTRY I — DR. JASON SMEERBS 2024
TR 11-12:20 pm**Table of Contents***Required/ Recommended Materials, Course Requirements* 2*Study Tips, Canvas LMS, Midterm Exams* 3*Exam Makeup Policy, Online Homework, Exam Grade Replacement* 4*Final Exam, Attendance Quizzes, Grading Scale, Important Dates* 5*Course Topics, Email & Classroom Courtesy Policies* 6**Contact Info****Instructor: Dr. Jason Smee**

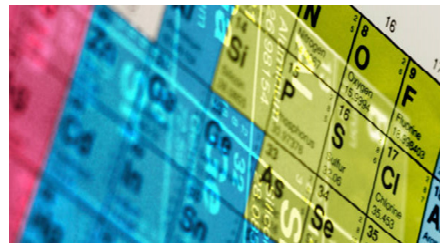
- jsmee@uttyler.edu (best)
- 903-566-7069
- Office: RBS 3030
- Office hours: MWF 10:30-11:30, TR 9-10, or by appointment
- [Zoom link for Office Hours](#). (if meeting by Zoom, please email me in advance so I can get Zoom up.)

“Chemistry has not been tried and found lacking. It has been found difficult and left untried.”

~Dr. Jason Smee

WELCOME TO GENERAL CHEMISTRY I**Introduction**

General Chemistry I will provide you with an understanding of the underlying principles of chemistry including the composition, structure, properties, and reactivity of matter. Topics include the physical and electronic properties of atoms, chemical formulas and reactions, periodic trends and the basic principles of chemical bonding (Chapters 1–10 in the textbook). Good study habits will be essential to your success. You will have to employ logic and critical thinking in order to solve a wide variety of both problems. You have many resources available including Supplemental Instruction (SI), departmental tutors, and my review sessions before each exam. Of course, I am happy to help you outside of class. ☺

**Student Learning Outcomes (Core Curriculum)**

- 1) apply the scientific method to analyze items or problems found on exams (Critical Thinking).
- 2) manipulate and analyze data embedded in word problems found on exams (Empirical and Quantitative Skills).

Additional Learning Outcomes

- 1) define the different classes of matter, compounds, and chemical reactions
- 2) solve quantities based on chemical equations
- 3) describe the electronic structure of atoms
- 4) predict periodic trends of the elements
- 5) explain the bonding and shape of simple molecules or ions

Important Covid-19 Information for Classrooms and Laboratories

It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure ([CDC quarantine/isolation guidelines](#)). Please work with your faculty members to maintain coursework and please consult [existing campus resources](#) for support.

Recording of Class Sessions

I will not be recording my lectures unless student accommodations or the virus-that-shall-not-be-named require it. Please note that some recordings may contain personally identifiable information or other information subject to FERPA. They shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission. *If you wish to audio record the lecture, please ask me for permission.* Otherwise you will just have to get the notes from one of your classmates.



“Nothing exists except atoms and empty space...”

~Democritus

(Greek philosopher,
460 – 370 BC)



“I made a decision it was not enough to just do the science but to also try to do something about directly applying scientific research to societal problems.”

~Mario Molina

(Mexican chemist, 1995 Nobel Prize for studying the effects of CFCs on the ozone layer)

REQUIRED MATERIALS

Achieve
macmillan learning

Achieve Online Homework is **REQUIRED** for homework assignments (see p 4 for more info)



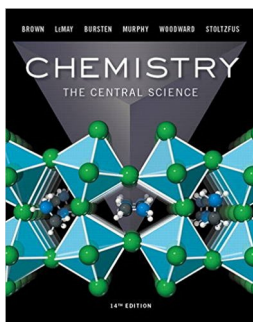
Scientific calculator capable of exponents and logarithms.

- Also, I do not know how every single type of calculator works, so please don't ask me. Ask a PASS tutor! ☺

Achieve Access Code Options

- Bookstore, ISBN: 9781319399900
- Purchase online (easier/cheaper) when you register for Achieve through this class's Canvas course (see page 4 for more info)

RECOMMENDED MATERIALS (NOT REQUIRED)



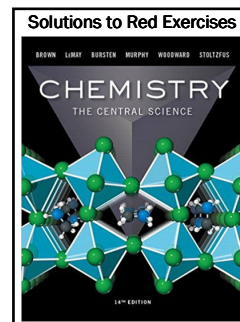
Chemistry: The Central Science, 14th Ed by Brown, Lemay, and Bursten

Textbook options (with ISBN)

- hardcover: 9780134414232
- 3-ring binder: 9780134555638
- e-book: 9780134554570

Periodic Table of Elements

Some kind of periodic table, purchase or print off the web.



Solutions to Red Exercises
ISBN: 9780134552231

COURSE REQUIREMENTS

- High school algebra and high school chemistry are highly recommended. If you haven't had chemistry, plan to devote extra study time to keep up.
- General Chemistry I Lab (CHEM 1111) is a separate course. If CHEM 1311 is being taken to fulfill a degree requirement **you must take both lecture and lab**. Students taking CHEM 1311 to satisfy the Core who are new do NOT have to take the lab. However the lab does satisfy 1 hour of the STEM Core requirement.
- The course meets every Tuesday and Thursday from August 22 to November 30 from 11–12:20 pm in RBS 2024. Class doesn't meet Thanksgiving week (Nov 20–24).
- To receive a passing grade for the course, **you must take the comprehensive final exam**; otherwise, you will fail the course (Final exam: Tuesday, Dec 5.)
- The **last day to withdraw from the course with a “W” is Monday, October 30**. It is *your* responsibility to withdraw from the course; otherwise, if you stop coming to class, you will receive an F! If you are withdrawing from this course, you are not required to withdraw from the laboratory course (CHEM 1111) and vice versa. Your lab instructor is not responsible for catching you up on lecture material you missed. If you are unsure as to whether or not you should drop both courses please consult with your instructors.

STUDY TIPS

- **Study, study, study!** Chemistry requires you to **read, review** and **practice** (1-2 hours per hour of lecture is typical).
- **Don't "brain-dump" after an exam**, you will continue to build upon and use information throughout the semester; **there are no retakes for exams!**
- **Form study groups**, there are some smart students at UT Tyler, get to know them. Also, teaching a topic to someone is a great way to reinforce that topic.
- **Do the online homework**, it is worth a big chunk of your grade, it has extra credit, and **will prepare you for the exams**.
- If you get behind, **do not be afraid to get help!** Take advantage of SI, my office hours and review sessions, and/or tutors.

CANVAS LEARNING MANAGEMENT SYSTEM

The SI leader and I will communicate primarily through the [Canvas course page](#). I will post

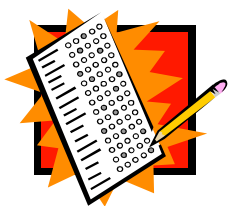
- Lecture notes (having a printed/electronic copy may be useful), and Zoom recordings (if applicable),
- All quiz and homework due dates,
- SI sessions times/rooms and changes
- Tutorial videos for selected topics (in "On Course" toolkit—the link is at the bottom of the "home" page)

Please make sure you are set to receive notifications to your email and/or your phone/tablet/etc. from Canvas preferably daily.



You are automatically enrolled in all classes you are registered in. Not all instructors use Canvas, but the course will still appear on your home page.

MIDTERM EXAMS (20% EACH, 60% TOTAL)



- The *regular exam* dates listed are tentative. University-approved absences don't include things like family vacations so plan ahead!
- At least one week's notice will be given prior to the exam. Mid-term exams will be 28 multiple-choice and 2 partial credit questions. They will cover material discussed in lecture.
- You are required to bring a pencil and a **non-programmable** scientific calculator. **One** 3½" x 5" note card, both sides is permitted (**HANDWRITTEN ONLY**, no photocopies or printed materials!). No other materials, including cell phones, are permitted! I have extra note cards if you need one.
- I will provide scantrons and scratch paper for calculations.
- Exams start promptly at 11:00 am and you must finish by 11:55 am.
- When finished please turn in your exam, scantron, note card, and scratch paper.
- I will do my best to return everything by the next class period. Mistakes do happen. If you think that I made a grading error, please see me within one week after taking the exam. *All scores are final one week after grades are posted on Canvas!*
- **Cell phones, smart watches, and any similar electronic devices must be turned off and put away during exams!** If they observed out in a visually accessible place (i.e. between legs, on the floor, etc.), it will be assumed that they are being used to cheat; your exam will taken away, you will receive a zero score (0 points) for the test, and you will be referred to the Office of Judicial Affairs.



"I don't think that everyone should become a mathematician, but I do believe that many students don't give mathematics a real chance.

~Maryam Mirzakhani

(Iranian mathematician, 1977-2017)



"The greatest people will be those who possess the best capacities, cultivated with the best habits."

~James Andrew Harris

(Waco, TX native and co-discoverer of elements 104 and 105, 1932-2000)

- Cost: \$42 or \$64 (2-semester access).** There is a 2-week grace period before you must purchase it.
- *I will not allow you to work all the homework for the semester in 2 weeks!*
- Homework is 20% of your grade. It can make or break your grade.
- Don't wait till the last minute. Everyone logging in at the same time causes problems.
- A 10% penalty, per day, is applied to any problems not finished by the due date.

****Prices are from Spring 2023; they may have changed.**

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- I will have practice quizzes on Canvas.
 - Study a little each day. Cramming works for short term memory, but will be of little help on the final exam. ☹️

EXAM MAKE-UP POLICY

- Missed exams will be handled according to one of the two following methods:
 - If you know that you will miss an exam due to an excused absence, then you can take the exam early. To do so you must give me a few day's notice.
 - Only under rare circumstances will you be permitted an extension.
 - For any unplanned, unexcused absences, such as illness, car-trouble, funeral, etc. the final exam can replace 1 exam grade.
- If you have questions regarding these policies, please ask me.

ONLINE HOMEWORK (20% OF TOTAL GRADE)

- Homework will be assigned for each chapter and will be **due 5 days after we finish that chapter's material.** This class meets Tuesdays and Thursdays, so that means the assignments will be due either on Sundays or Tuesdays, respectively.
- All assignment notices will be posted on Canvas. Please try complete homework assignments on time. Microsoft Edge may not work with Achieve, you may want to use another browser instead (Chrome, Firefox, etc.). Mobile devices also don't play well with Achieve; so using a desktop computer, laptop, or tablet is recommended.
- I will set up a virtual Zoom "office" hour on the evening homework is due for homework questions, but I will be asleep well before the actual deadline to submit the homework.
- Do not buy "USED" Achieve access codes, they probably won't work!

To enroll in the Achieve section for this course follow the steps below

- Click the Macmillan Learning link (between the Home and Syllabus links)
- Then click the Achieve link (goes to Achieve home page) and you will be prompted to enter your name and email address.
- Follow these [instructions](#) for help connecting your **Canvas** and Achieve accounts. You will have the option to pay for access, enter a code from a purchase, or start the free 2-week trial. Note: I will not post all the assignments in the first two weeks.

Other helpful links

- Disable your browser's pop-up blockers and refer to the [troubleshooting guide](#) if you experience any difficulty accessing Achieve.
- [Browse Achieve > Getting Started Guide for Students.](#)
- [Chat](#) with Macmillan Customer Support.



EXAM GRADE REPLACEMENT

- I will **replace** (not drop) your lowest exam score with your final exam score if your final exam score is higher. (If the final exam score is the lowest score, then no grade will be replaced.)
- Your homework grade **will not** be replaced.
- As an example, if your three lowest exam scores were 60, 75, and 85 and you made an 80 on the final, then the 60 grade would be changed to 80. If you make a 55 on the final then the 60, 75, and 85 would remain as they are.

FINAL EXAM (15% OF TOTAL GRADE)

- The final examination (15% of the total grade) will be given on (and only on) **Tuesday, December 5th**. You are required to take the final examination in order to receive a passing grade in the course. No make-ups of the final exam, no exceptions!
- The comprehensive final examination is a standardized exam written by the American Chemical Society (70 multiple-choice questions). The questions are not particularly hard, but there are A LOT of them.



- Don't brain dump after each exam. The material builds on itself and gets used over and over again.

MASTERY CHECKS (5% OF TOTAL GRADE)

- After each lecture there will be a short, 2- or 3-question Canvas quiz over that day's material.
- For full credit you must submit your answer(s) to the Canvas quiz by 11:59 pm **the day of the lecture.**
- Attending the lecture is not necessarily required to complete the quiz, but will help.

- If you will miss an exam, let me know as soon as possible!
- You must take the final exam to pass the class! (We need the information for accreditation!)

GRADING SCALE

Grades will tentatively be assigned on a 90/80/70/60 scale, but may be adjusted based upon my evaluation of the overall class performance.	Achieve Online Homework	20%
Grades will be posted on Canvas and weighted as shown to the right:	Midterm Exams	60%
	Final Exam	15%
	Mastery Checks	5%
	Total*	100%

*The OFFICIAL grade book for the course is on my office computer (in the event of typos/mistakes on Canvas).

Please inform me of any mistakes. They do happen!

- Unless it's truly necessary, it's not a good idea to skip an exam and rely on the final exam to help you out.



IMPORTANT DATES

- Sept 1 (Friday) – Census date, last day to file for grade replacement
- Sept 26 (Tuesday) – Midterm Exam 1; subject to change**
- Oct 1 (Sunday) – FINAL deadline to apply for Fall graduation
- Oct 19 (Thursday) – Career Success Conference
- Oct 26 (Thursday) – Midterm Exam 2; subject to change**
- Oct 30 (Monday) – Last day to drop or withdraw from courses**
- Nov 20–24 (Mon–Fri) Thanksgiving, no classes
- Nov 28 (Tuesday) - Midterm Exam 3; subject to change**
- Dec 5 (Tuesday) – Final Exam from 11 am – 1 pm**



“If it exists it’s chemistry. If you can buy it, a chemist was involved somewhere.”

~Dr. Clifton Meloan
(Dr. Smee’s Gen Chem professor, 1931-2021)

Thanks for sending me an email asking me to do something for you that it would have taken less time for you to do than it took for you to send me an email.



your e-cards
somecards.com

COURSE TOPICS

- | | |
|--------------------------------------------------------------------|-------------|
| • Introduction: Matter and Measurement | Chapter 1 |
| • Atoms, Molecules, and Ions | Chapter 2 |
| • Stoichiometry: Calculations with Chemical Formulas and Equations | Chapter 3 |
| • Aqueous Reactions and Solution Stoichiometry | Chapter 4 |
| • Thermochemistry | Chapter 5 |
| • Electronic Structure of Atoms | Chapter 6 |
| • Periodic Properties of the Elements | Chapter 7 |
| • Basic Concepts of Chemical Bonding | Chapter 8 |
| • Molecular Geometry and Bonding Theories | Chapter 9 * |
| • Gases | Chapter 10 |

*Depending on time constraints we may skip 9.6 and 9.7

EMAIL POLICY

Contrary to popular thought, instructors don’t live in our offices, we have lives outside of school, and we don’t sit around waiting for student emails (most of the time).

- I will try to respond to email regularly during normal business hours.
- After hours and on week-ends I will respond as my life activities allow.
- Please don’t expect responses to email sent after 10 pm until at least 9 or 10 am the next day.



CLASSROOM COURTESY POLICY

Small disruptions add up quickly in large classes. Show respect and courtesy to me, the SI leader, and fellow students by

- choosing an outside seat if you arrive late or leave early (and doing so as quietly as possible).
- silencing all cell phones, pagers, iPods, etc. during class.
- not texting or calling during class. Please leave if you absolutely must make a call.
- using electronic devices responsibly. You may use your device to take notes, but please don’t do homework or play games; there are WAY more comfortable places than in our classroom.
- refraining from derogatory remarks and profanity in class.
- not talking during class presentations or over top of another person during discussions. **The room is designed for sound to travel; you are not as quiet as you think when you whisper in class.**



All my life through, the new sights of Nature made me rejoice like a child.

~Marie Curie

(Polish Chemist and Physicist, 1867–1934)

